6-2014

Mammals of Kenya's protected areas from 1888 to 2013

Aniko B. Toth
Smithsonian Institute

S. Kathleen Lyon
Smithsonian Institute

Anna K. Behrensmeyer
Smithsonian Institute

Ecology, 95(6), 2014, p. 1711

Mammals of Kenya's protected areas from 1888 to 2013

Ecological Archives E095-150

Anikó B. Tóth,[1] S. Kathleen Lyons, and Anna K. Behrensmeyer

Evolution of Terrestrial Ecosystems Program, Department of Paleobiology, MRC 121, National Museum of Natural History, Smithsonian Institute, Washington, D.C. 20013 USA

Abstract. Kenya is a world leader in conservation and host to one of the most diverse array of mammals on the planet. As a focus of scientific attention, it is important to be able to assess not only the current state of Kenya's mammal communities, but also how they have changed over anthropogenic timescales. Comprehensive lists of mammal species from known areas are essential for this goal, and these also provide comparative baselines for assessing changes in mammalian diversity in the future and in the fossil record. Though there is considerable literature available for mammals inhabiting Kenyan protected areas (National Parks and Reserves), species compilation projects vary greatly in scope, completeness, agreement, and accuracy. We combine the information in these databases for Kenya and supplement them with the most up-to-date knowledge available up to November 2013. Comprehensive historical species lists were compiled from specimen lists collected during 1888–1950 in ecosystems that today correspond to 13 different protected areas. We also provide analogous modern species lists based on data collected during 1950–2012. The data sets include both large and small mammals. A master list of a total of 413 species provides ecological information including body mass, diet, feeding and shelter habitat, and activity time. Historical data are based on museum specimens and sighting records, and modern data are based on museum data as well as literature, books, field guides, written accounts, photos, and videos. We used this compilation for an analysis comparing the two data sets (excluding volant and domestic species) for six protected areas with the most complete historical records and have shown in a separate publication that species richness is preserved, but beta diversity, based on pairwise comparisons of sites in this database, is being lost over the entire study area.

Key words: biodiversity; community ecology; East Africa; ecology; large mammals; mammals; protected areas; small mammals; species lists.

Manuscript received 13 November 2013; revised 10 March 2014; accepted 21 March 2014. Corresponding Editor: W. K. Michener.

[1] E-mail: totha@si.edu